Non-Traditional and Traditional Treatment of Hawaiian and Non-Hawaiian Adolescents

Naleen N. Andrade MD, Ronald C. Johnson PhD, Jeanne Edman PhD, George P. Danko PhD, Linda B. Nahulu MD, George K. Makini Jr, MD, Noelle Yuen MD, Jane A. Waldron PhD, Alayne Yates MD, John F. McDermott Jr, MD

More than 4,000 adolescents of Hawaiian and non-Hawaiian ancestry responded to a survey that provided information concerning the frequency with which they had been treated by nurses/doctors and by Native Hawaiian healers, their treatment preferences, self-assessments of health concerns, and self-reports of health indices. Measures of identification with traditional Hawaiian culture, and 4 measures (depression, anxiety, conduct disorder, and substance abuse) of psychopathology were also obtained. Many Hawaiians sought treatment from Western practitioners (eg, medical doctors and nurses) and a few by Native healers. Differences in treatment-seeking behaviors were in the same direction for non-Hawaiians, but frequency of seeking treatment was fewer for both sources of health practitioners. Few Hawaiian and non-Hawaiian respondents preferred nurses as their first choice for help in overcoming mental problems, comparatively more preferred healers (more often by Hawaiians than non-Hawaiians), still more preferred medical doctors or ministers/priests, and most often preferred teachers or counselors. There was a slight positive correlation between being treated by nurses/doctors and by Native healers. Claims that acceptance of the Western and traditional Hawaiian treatment systems are antithetical to one another are not supported. While only a minority of Hawaiian adolescents prefer treatment by healers, the efficacy of indigenous diagnostic and treatment procedures need study, and if efficacious in maintaining mental health access to healers should be made more easily available for those preferring such treatment.

Sue and Morishima,[1] Lin, Inui, Kleinman, and Womack,[2] Higginbotham,[3-4] and Anderson[5] are among those claiming that there are substantial differences between racial/ethnic groups (even residing in the same nation) in judgments of the severity of psychiatric symptoms. Sue et al[6] and Narikiyo and Kameoka[7] have stated that Caucasians and non-Caucasians differ in beliefs concerning the causes of mental problems. Most of the research cited above has reported non-Caucasians to be underrepresented among persons using mental health services. It is assumed that problem frequency is equal across groups, and that an ethnic match between client and therapist[8] and/or the use of indigenous culture-specific treatment procedures[4] would increase the use of treatment facilities by non-Caucasians.

It is this last topic—the claim that non-Caucasians are rejecting conventional treatment and desire non-Western treatment—that is the concern of the present report. Two themes are present in papers cited above: First that non-Caucasians reject conventional Western treatment procedures and second, that they greatly prefer indigenous treatment modalities. These claims are made strongly with regard to Native Hawaiians by Higginbotham[4] and are reflected in a number of other papers in the edited book by Robillard and Marsella[9] in which Higginbotham's work appears. Snyder[10] reported that among people treated by Native Hawaiian healers, the vast majority preferred such treatment. There is evidence that there is a desire on the part of some individuals for such treatment, but there is little data with regard to the proportions of Hawaiians in general who prefer such treatment. The present report will examine data obtained from a large sample of Hawaiian and non-Hawaiian adolescents who, while perhaps not fully representative, are far more representative and can yield some information on the existing prevalence of preferred treatment sources.

Before describing the present report, two definitions must be made: 1) Who is Hawaiian? and 2) Who is a Native Hawaiian healer? The term "Hawaiian" refers to a person whose ancestry includes that of the aboriginal inhabitants of the Hawaiian Islands. The term Native Hawaiian healer refers to an individual who has undergone an apprenticeship in the Native Hawaiian healing traditions and practices. Native Hawaiian healers are formally known by the title of *kahuna* (the term to describe a teacher, scholar or expert, ie, the Western equivalent of an MD, PhD, or master artist/craftsman), followed by the specific area of medical or mental health expertise they possess. For example, the *kahuna laau lapaau* (a practitioner who is skilled in healing from the use of extracts, potions, and poultices made from parts of plants, as well as ocean seaweeds, algaes, corals, and fishes) is the most common kind of healer and is the Hawaiian equivalent of a medical general practitioner who treated the common ills of families. In traditional Hawaiian healing, the medicines used in healing rituals are comprised of plant and animal counterparts from the land and sea. For example, different phases of a treatment might involve using the *kala* (the name of a certain plant, seaweed, and fish) of the land (the *akala* raspberry), the *kala* of the sea (*limu kala* or *seaweed kala*), and the fish named *kala.*[11] Other *kahuna* specialize in specific areas such as the manipulation of muscles and joints to relieve joint inflammation, muscle strain or sprains (*kahuna lomi lomi*); diagnosing tumors, abscesses or other inflammations or infections of the pulmonary, cardiac or intestinal systems by body examination and palpation (*kahuna haha*); the setting of fractured bones and calling on spiritual forces for healing (*kahuna laau kahea*); and the assessment and mending of relationships

Native Hawaiian Mental Health Research Development Program
Department of Psychiatry
John A. Burns School of Medicine
University of Hawaii
Honolulu, Hawaii 96822

The preparation of this manuscript was supported by RCMI Supplement NIH Grant No. RR0361-906S1 and NIMH Grant No. 1 R24 MH50151-01

which caused emotional discord within an individual, ie, the Hawaiian equivalent of a psychiatrist (*kahuna kuehu*).

Kahuna were licensed to practice medicine in Hawaii until 1965, at which time the Hawaii legislature discontinued licensing because of a lack of strong advocates for formally organizing the body of knowledge and practices of healers that largely worked within communities suspicious of Western ways and closed to the non-Hawaiian medical world.[12-13] Hence, use of traditional healers were largely within the Native Hawaiian community "word-of-mouth" networks until the 1980s when a federal focus on Native Hawaiian health resulted in the Native Hawaiian Health Care Act[14] and included Native healers as an integral part of a Native Hawaiian health care system. Today in Hawaii, Native healers from all islands in Hawaii have "gone public," have organized, and are now beginning to set standards of practice and training.

This paper has to do with the help-seeking behaviors for problems—either physical or emotional—and preferences for help with emotional problems. We obtained data regarding help-seeking behavior within the Western health delivery system and outside it, eg, seeking care from Native healers. The data are presented below.

Method

Sample.—The subjects were in grades 9 to 12 in five high schools. These students are participants in a longitudinal study that began with testing in 1992. The 1992 sample was obtained from 3 high schools, 2 on the island of Oahu and 1 from a Neighbor Island. The 1992 sample had such a high proportion (88.5%) of subjects of Hawaiian ancestry that there was a need for a more significant non-Hawaiian comparison group. From 1993, students from 5 schools were assessed from the original 3 schools plus 2 more schools from the Neighbor Islands. Participation occurred only with parental consent and the consent of the student. The 1993 sample consisted of 2,632 subjects of Hawaiian or part-Hawaiian ancestry and 1,532 subjects not of Hawaiian ancestry. Because the major purpose of the present study is to assess treatments for problems, treatment preferences, and personal correlates of differences in perceived and preferred types of treatment between Hawaiians and others, the non-Hawaiian group was not further subdivided by ethnicity.

Measures.—Ancestry was assessed by asking respondents whether or not they were of Native Hawaiian ancestry and, if so, their blood quantum of Hawaiian ancestry (100%, 50% or more, less than 50%). Since a person's Hawaiian blood quantum has important economic consequences, such as whether or not he or she is eligible for being allotted a Hawaiian homestead, it is probable that respondents were aware of their degree of Native Hawaiian ancestry. These responses were checked against responses to another question in which respondents listed their mother's and father's ancestral groups.

The frequency of treatment in the past 6 months by a nurse or a physician and by a Native Hawaiian healer were assessed in separate questions with alternative responses of never, once, twice, 3 to 4 times, and 5 or more times. Subjects were asked, "When you have mental and emotional problems, who would you prefer to see for help?" (Check only one.) Alternatives were 1) doctor, 2) nurse, 3) Native Hawaiian healer (*kahuna lapaau*), 4) teacher or school counselor, and 5) church minister or priest. They were asked how much their physical health had worried or concerned them in the past month (1 to 5 scale from "not at all concerned" to "very much concerned") and asked the same question concerning their mental (emotional) health. They were asked to rate their own health as compared with others of their same age in a 5-point scale ordered from "not as healthy" to "healthier than others." They were asked, "When did you last have counseling (dormitory counselor, school counselor, testing for personal problems) or any other mental health services?" Alternatives were: Never, over 2 years ago, 1 to 2 years ago, 6 months ago, 1 year ago, and within the past 6 months. They were asked, "During the past month of school, how many days were you absent because you were sick?" Alternatives were: None, 1 to 2 days, 3 to 4 days, 5 to 7 days, and 8 days or more.

The measure of Hawaiian cultural orientation consisted of 45 items responded to on a 3-point scale: 1) Unfamiliar/doesn't know, 2) You understand or believe in, you know about, you know how to (depending on the kind of item), and 3) You practice, believe in/support, you do (depending on the kind of item). The items were factor analyzed and fell into five factors (identical for Hawaiians and non-Hawaiians). These factors along with the 2 items loading on each factor are: 1) Traditional lifestyle (net fishing, taro farming), 2) Mythology/folklore (night marchers, *menehune*), 3) Spiritual/religious (*aumakua*, offerings at *heiau*), 4) Social activities (hula, chant/play music), and 5) Political causes (Hawaiian homesteads, Kahoolawe). (The factors listed as factors 3 and 4 were in reverse order for the non-Hawaiians). The Hawaiian cultural identification scale is described fully in Andrade, et al.[15]

The measures of adjustment that formed part of the questionnaire were the Center for Epidemiologic Study Depression Scale (CES-D)[16]; Spielberger State-Trait Anxiety Inventory[17]; The Braver Aggression Dimension Scale (BADS)[18]; and an abbreviated form of the Subtle Substance Abuse Screening Inventory (SASSI-A).[19] The abbreviated form of the SASSI consisted of 7 items from the original SASSI that had a high degree of face validity.

Procedure.—The self-report questionnaire was administered to all students at the same time during the spring semester in the morning (start time at 3 schools was 8:30 am and 10:30 am at 2 schools) on either Tuesday or Wednesday. Two weeks prior to the survey, parents were sent a packet containing on introductory letter with informed consent documents and a stamped, addressed postcard. Parents were instructed to mail the postcard to indicate their refusal for their child's participation. Failure to send the postcard indicated permission and consent (implied consent). On the morning of the survey, teachers (who received training 5 weeks prior) followed a written set of instructions explaining the purpose and nature of the questionnaire and active informed consent was received from students whose parents had given implied consent. Then all consent forms, which were match coded to the questionnaire booklets, were immediately collected and placed in sealed envelopes. Teachers then instructed students to complete the questionnaire. Members of the research team were available to answer questions. Most students completed the survey within 45 minutes.

Results

The first question to be addressed was that of ascertaining the number of Hawaiian and non-Hawaiian respondents who, within the 6 months prior to assessment, had been treated by a nurse or doctor or by a Native Hawaiian healer and, if treated, the number of separate treatments. (Table 1)

Counting 3 to 4 visits as 3.5 and 5 or more visits as 5.5, Hawaiian respondents made an average of 1.79 visits to a nurse or doctor and 0.12 visits to a Native Hawaiian healer. Non-Hawaiians saw a nurse or doctor an average of 1.24 times and a Native Hawaiian healer 0.05 times. Hawaiians visited nurses/doctors and also Native Hawaiian healers significantly more often than did non-Hawaiians (t values of 5.53, $p<.001$, and 6.68, $p<.001$ respectively).

Next, respondents' preferences for sources of help was assessed. Each respondent was asked to choose the preferred source of help from among the 5 alternatives listed in the table. In all, 729 respondents did not answer this question. The numbers and the percents of Hawaiian and of non-Hawaiian subjects choosing each of these alternatives is shown in Table 2.

The correlations between the different self-report indices of problems and with frequencies of having been treated by nurses/doctors and by Native Hawaiian healers are shown in Table 3 for Hawaiian and non-Hawaiian subjects.

The means of the 5 factor scores of the Hawaiian identification scale and the 4 measures of adjustment are shown in Table 4 for Hawaiian and non-Hawaiian respondents who 1) saw neither a nurse or doctor nor a healer, 2) saw a nurse/doctor but not a healer, 3) saw a healer but not a nurse/doctor, and 4) saw both a nurse/doctor and a healer.

Discussion

Being treated by a Native Hawaiian healer might involve being treated for physical illnesses by herbal medicine, massage, and having broken bones set, as well as being treated for emotional problems. Grouping all of these modalities together, treatment by a Native Hawaiian healer is far less frequent than treatment by a doctor or nurse. Two hundred twenty (8.20%) of the Native Hawaiian subjects saw a healer as compared with 2,040 (79.69%) who saw a doctor or nurse. Hawaiian subjects saw nurses/doctors significantly more often than did non-Hawaiians and also were treated more often by Native Hawaiian healers than were non-Hawaiians. These results conflict with claims that Hawaiians are rejecting of and unwilling to engage in Western treatment modalities, even though a portion of them are treated by Native Hawaiian healers as well.

Comparatively few Hawaiian subjects had been treated by healers in the past 6 months. As Table 2 indicates, a larger number of them (278) would prefer treatment by Native healers than those (220) who actually received such treatment. Even so, about twice as many Hawaiian subjects prefer being treated by a physician than by healers. Not surprising, the proportion of non-Hawaiian subjects preferring physicians to healers is even greater. Ministers/priests are viewed as being almost as important as physicians as sources of help in overcoming problems; this finding may reflect the availability of clergy through church activities. Seven hundred twenty-nine (21.3%) respondents did not answer the question on preference for sources of help perhaps indicating uncertainty or conflicting beliefs among these late adolescents.

Far more subjects prefer help from teachers or counselors than from any other source. This finding may be due to availability of teachers and counselors; however, given the negative view generally expressed toward schools by the media, this finding indicates that given a choice, students still prefer going to teachers and counselors when they need help. The findings on help preference suggest that prevention and intervention strategies might be most effective if access—and perhaps certain interventions currently relegated to mental health clinics—were facilitated and/or conducted by teachers and counselors.

The correlations between self-reported treatment by doctors/nurses and by healers are in the expected direction and although almost always significant, are small in magnitude. The correlations are comparable for the 2 groups of subjects. Two of them deserve mention. First (not surprisingly), there seems to be a general factor concerning worrying; people who worry about their physical health, worry about their emotional health as well. Second, and more important in terms of the aims of this paper, there is a small but significant positive correlation (as also can be seen in the frequency distribution of Table 1) between seeing a physician or nurse and being treated by a healer. Subjects who worried more sought help more frequently from both traditional and non-traditional sources.

Involvement with the Hawaiian culture was predictive of being treated by a Native healer for subjects of Hawaiian ancestry. (One of the questions having to do with Hawaiian customs had to do with knowledge of and belief in Native Hawaiian healing practices, essentially building in the association, but the items having to do with other dimensions of Hawaiian cultural identification did not have to do with healing.) While non-Hawaiian subjects as a group scored far lower in Hawaiianness than did the Hawaiians, involvement with Hawaiian culture was also predictive of being treated by a Native healer for non-Hawaiian subjects.

Persons who received no treatment generally were better adjusted than those receiving treatment by doctors/nurses, by healers, or by both. Persons treated both by doctors/nurses and healers generally had poorer adjustment as measured by responses to symptom scales, than were members of the other 3 groups. It is to be expected that persons with more problems would be more likely to seek help.

In general, those persons treated by a nurse/doctor or else by

Table 1.—Frequency of Treatment by Doctor/Nurse or by Native Healer.

Doctor/nurse	Native Healer Group	Never	Once	Twice	3-4	5+	Total
Never	H	457	15	6	3	9	490
	NH	360	0	1	1	0	362
Once	H	793	37	14	8	1	853
	NH	526	21	2	0	1	550
Twice	H	523	35	10	9	1	578
	NH	309	5	4	1	3	322
3-4	H	351	20	9	3	4	387
	NH	177	3	0	1	0	181
5+	H	186	23	4	1	6	220
	NH	70	1	0	0	2	73
Total	H	2310	130	43	24	21	2528*

H=Hawaiian; NH=Non-Hawaiian
*Ns slightly lower than the total N as a result of missing data.

Table 2.—Preference for Source of Help.

	Hawaiian	Non-Hawaiian	Total
Doctor	442 (20.12%)	347 (25.03%)	789 (22.57%)
Nurse	56 (2.55%)	49 (3.88%)	105 (3.21%)
Native Healer	278 (12.65%)	46 (3.72%)	324 (8.18%)
Teacher/Counselor	1104 (50.25%)	625 (50.48%)	1729 (50.36%)
Minister/Priest	307 (14.43%)	172 (13.89%)	479 (14.16%)

a healer, but not by both, were intermediate in symptom scores. The exception to this has to do with the depression scores, and to a lesser degree anxiety scores, of Hawaiians treated by a Native healer, which are the lowest of any group; however, the N is small, 26 of well over 2,000 Hawaiian adolescents. Notable Hawaiian Culture Scale findings among these 26 Hawaiians who exclusively sought Native healers for help are a) their cultural subscale scores were the highest of all subjects, indicating high involvement in Hawaiian culture, and b) their subscale score for "Mythology and Folklore" was the highest score among all Hawaiians. Items in the "Mythology and Folklore" subscale which include nightmarchers, *menehune*, *Pele*, *Maui* the demigod, the ti leaf as protection, rain blessing, and *Kahuna* attempt to measure cultural beliefs that are somewhat "magical" and explore the deepest belief level, the one that is most divergent with Western beliefs. These findings may suggest that depression (and anxiety), common transient symptoms in all adolescents, are best influenced by a psycho-cultural framework, not a biological one.

It has been claimed that Hawaiians are not accepting of the conventional Western health care delivery system and prefer culture-specific indigenous treatment. Neither of these claims is supported by the present data. Hawaiian adolescents report being treated by nurses or doctors more often than do non-Hawaiians. Comparatively few Hawaiian adolescents have been treated by Native healers and only about 1% have been treated by healers and not by nurses or doctors as well. The frequency of treatment of one versus the other source of help is positively correlated. Help seeking from 1 of the 2 sources is not negatively associated with help seeking from the other source. More Hawaiian adolescents prefer treatment by a Native healer than actually have received such treatment, but even so, only 12.65% prefer this source of help.

Results having to do with preferred helpers indicate a strong preference for teachers or counselors. Providing teachers and counselors with objective screening measures of adjustment and providing them with opportunities to enhance their treatment skills would appear to be an extremely cost-effective means of helping young people overcome their problems. Although more difficult to accomplish, ministers and priests might welcome information concerning treatment techniques and their effectiveness.

The findings of this study show that Hawaiian opposition to conventional medical practices and preference for indigenous treatment modalities have been exaggerated or may be a function of when studies were conducted: The 1979 work done by Synder versus our current work done 15 years later. The significant number of Hawaiian adolescents who do receive indigenous treatment indicate that an examination of Native healer's diagnostic systems and an understanding and evaluation of treatment procedures clearly would be of value, as would be further ethnobotanical study of Hawaiian herbal medicine. An integration of Western and indigenous healing practices should be a major goal for the medical and psychiatric practices in order to provide indigenous peoples with culturally syntonic health care.

References

1. Sue S, Morishima JK. *The mental health of Asian Americans.* San Francisco, Calif.: Jossey-Bass; 1982.
2. Lin KM, Inui TS, Kleinman AM, Womack WM. Sociocultural determinates of the help-seeking behavior of patients with mental illness. *J Nerv Ment Dis.* 1982:170; 78-85.
3. Higginbotham HN. *Third world challenge to psychiatry: cultural accommodation and mental health care.* Honolulu, Hawaii: University of Hawaii Press; 1984.
4. Higginbotham HN; Robillard AB, Marsella AJ, eds. The cultural accommodation of mental health services for Native Hawaiians. In: *Contemporary issues in mental health in the Pacific.* Honolulu, Hawaii: Social Science Research Institute, University of Hawaii: 1987.
5. Anderson RM. The perception of psychological and physical symptom severity: demographic and physiological correlates. Honolulu, Hawaii: University of Hawaii; 1986. Thesis.
6. Sue S, Wagner N, Ja D, Margullis C, Lew L. Conceptions of mental illness among Asian and Caucasian-American students. *Psychol Rep.* 1976; 38; 703-708.
7. Narikiyo TA, Kameoka VA. Attributes of mental illness and judgments about help seeking among Japanese-American and white American students. *J Counseling Psychol.* 1992:39,363-369.
8. Sue S. Culturally responsive treatment urged to help ethnic minority clients. *Hawaiian Psychologist.* 1993:16;17-18.
9. Robillard AB, Marsella AJ eds. *Contemporary issues in mental health in the Pacific.* Honolulu, Hawaii: Social Science Research Institute, University of Hawaii; 1987.
10. Snyder P. Folk healing in Honolulu. Honolulu, Hawaii: University of Hawaii;1979.
11. Gutmanis J. *Kahuna laau lapaau.* Honolulu, Hawaii: Island Heritage Limited, Honolulu Publishing Co, Ltd, 1979.
12. Hawaii State Act 153. Hawaii State Legislature. Honolulu, Hawaii; 1965.
13. Chun MN. Ka moolelo laikini laau lapaau: The history of licensing traditional native practitioners. Honolulu, Hawaii: E Ola Mau, Inc. Report: 1989.
14. The Native Hawaiian health care act . U.S. Congressional Records, Washington, D.C. 1988.
15. Andrade N, et al. Measuring culture in psychiatric epidemiology: Developing a Hawaiian culture scale. Honolulu, Hawaii: University of Hawaii; 1994. Native Hawaiian Mental Health Research Development Program.
16. Radloff LS. The CES-D scale: A self-report depression scale for research in the general population. *Appl Psychol Meas.* 1977:1: 385-401.
17. Spielberger CD, Gorsuch RL, Lushene RE. Manual for the state trait anxiety inventory. Palo Alto, Calif.: Consulting Psychologist Press; 1970.
18. Braver SL, Fogas B, Sandler I, Wolchik S. Psychometric characteristics of the BADS. Poster presented at the Annual Psychological Association Meeting, Seattle, Washington, May 1986.
19. Miller, G. Substance abuse subtle screening inventory (SASSI) manual. Spencer, In: *Spencer Evening World,* 1985. (SASSI abbreviated in consultation with the author, personal communication 1992).

Table 3.—Correlations of Self-Reported Problems and Frequency of Treatment by Nurses/Doctors and Healers.

		Worry, mental health	Comparative health	Last counseling	Absences	Saw nurse/doctor	Saw healer
Worry, physical health	H	0.55	-0.26	0.13	0.19	0.18	0.07
	NH	0.50	-0.22	0.11	0.14	0.22	-0.01
Worry, mental health	H		-0.15	0.25	0.14	0.11	0.09
	NH		-0.15	0.21	0.10	0.15	0.06
Comparative health	H			-0.03	-0.18	-0.05	0.01
	NH			-0.07	-0.14	-0.10	0.01
Last Counseling	H				0.07	0.15	0.04
	NH				0.08	0.15	0.08
Absences	H					0.25	0.13
	NH					0.20	0.05
Saw nurse/doctor	H						0.08
	NH						0.06

H=Hawaiian (Ns range from 2287 to 2338). NH=Non-Hawaiian (Ns range from 1361 to 1386. Correlations of 0.05 and above are significant. ($p<0.05$)

Table 4.—Help seeking, Hawaiian-ness, and Symptom Scores

	Hawaiian				Non-Hawaiian			
	Neither/ Doctor nor Healer (449)	Nurse/ Doctor, no Healer (1689)	Healer, no Nurse/ Doctor (26)	Both Nurse/ Doctor, Healer (174)	Neither/ Doctor nor Healer (336)	Nurse/ Doctor, no Healer (1022)	Healer, no Nurse/ Doctor (1)	Both Nurse/ Doctor, Healer (28)
Hawaiian-ness								
Customs	58.73	61.62	74.23	69.20	47.90	48.93	63.33	54.88
Causes	65.73	68.51	77.88	73.92	49.15	50.15	45.83	53.57
Folklore	72.97	74.90	88.46	80.90	60.25	62.11	79.17	66.05
Life Style	65.20	66.04	81.79	77.89	53.25	52.93	43.33	67.38
Activities	67.39	70.77	81.94	77.71	51.11	52.92	58.33	58.53
Symptoms								
Depression	15.37	16.09	12.69	18.28	13.89	15.23	20.00	20.29
Anxiety	18.89	19.85	17.00	21.45	17.96	19.20	19.00	23.18
Aggression	6.11	5.90	6.31	7.29	4.71	5.30	5.00	7.61
Substance Abuse	1.06	0.91	0.96	1.57	0.65	0.81	0.00	1.54